***STATE FOREST LAND***
**ENVIRONMENTAL CHECKLIST**

**Purpose of Checklist:**

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

**Instructions for Applicants:**

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/ watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at http://www.dnr.wa.gov under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

**Use of checklist for nonproject proposals:**

Complete this checklist for nonproject proposals, even though questions may be answered " does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

**A. BACKGROUND**

1. Name of proposed project, if applicable:

   *Timber Sale Name:* SISCO PC  *Agreement #:* **30-075682**

2. Name of applicant:

   **Washington State Department of Natural Resources**

3. Address and phone number of applicant and contact person:

   **Pacific Cascade Region**
   **PO Box 280**
   **Castle Roock, WA 98611**

   **Contact Person: Jim LeJeune**
   **Phone # (360) 577-2025**

4. Date checklist prepared: **11/19/2003**

5. Agency requesting checklist:

   **Washington State Department of Natural Resources**

6. Proposed timing or schedule (including phasing, if applicable):

   *a.* *Auction Date:* **2005**
   *b.* *Planned contract end date (but may be extended):* **2006**
   *c.* *Phasing:* **A regeneration harvest may occur in the future.**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   *Timber Sale*

   *a.* *Site preparation:* **Not applicable as this proposal is a partial cut.**

   *b.* *Regeneration Method:* **Not applicable as this proposal is a partial cut.**

   *c.* *Vegetation Management:* **Not applicable as this proposal is a partial cut.**

   *d.* *Thinning:* **Not applicable as this proposal is a partial cut.**

*Roads:* **Routine road maintenance, periodic ditch and culvert cleaning as necessary. Construction associated with forest management activities.**

*Rock Pits and/or Sale:* **Rock will be removed from the Too Thin rock Quarry.**

*Other:* **Firewood permits for the sale area may be available to the public if after harvest, downed wood is plentiful near roadsides.**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐*303 (d) – listed water body in WAU:* ☐*temp* ☐*sediment* ☐*completed TMDL (total maximum daily load):*
☐*Landscape plan:*
☐*Watershed analysis:*
☐*Interdisciplinary team (ID Team) report:*
☒*Road design plan:* **Available at Pacific Cascade Region Office.**
☐*Wildlife report:*
☐*Geotechnical report:*
☐*Other specialist report(s):*
☐*Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☒*Rock pit plan:* **Available at the Pacific Cascade Region Office.**
☒*Other:* **Forest Resource Plan, dated July 1992: State Soil Survey: Washington State Department of Natural Resoucecs Habitat Conservation Plan: dated September 1997; South Coast Planning Unit Marbled Murrelet Habitat Reclassification Map, dated November 1999: ESA Listed Sallmonid Species Map for Forest Practices , dated 1999. All are available at the Pacific Cascade Region Office.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

**None known.**

10. List any government approvals or permits that will be needed for your proposal, if known.

☒*HPA* **ST-D9199-04** ☒*Burning permit* ☐*Shoreline permit* ☒*Incidental take permit* **1168 and PRT 812521**
☒*FPA #* _____ ☐*Other:*

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. *Complete proposal description:*

**Approximately 121 acres were considered for harvest with the Sisco PC Timber Sale in the Capitol State Forest. Of the 121 acres in the proposal, 0.3 acres will be clearcut for the right-of-way of a proposed road. There are approximately four acres of existing road(s) within the sale area. The remaining 116.7 acres will be partial cut, leaving 90-100 trees per acre. The residual trees will be marked with blue paint. The sale is located approximately 7 miles by road, northeast of the town of Porter. There are 303 feet of optional road construction.**

**There are three type 5 streams located in the proposal area. There are no RMZs established along the type 5 streams per DNR's Habitat Conservation Plan; however, a 30-foot-wide Equipment Limitation Zone will be utilized.**

b. *Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.*

**Forest stand types in the proposal predominantly consist of 61-year-old Douglas-fir, western hemlock, and western redcedar. The stand has average diameter of 16 inches, and average hight of 110 feet. The current stand averages 212 trees per acre and approximately 65 thousand board feet per acre. Dominant herbaceous species found on the proposal site include evergreen and red huckleberry, sword fern, and salal.**

**This proposal will be a partial cut, which will leave 90-100 trees per acre on 116.7 acres and 0.3 acres will be harvested as right-of-way. Ground based harvesting will be used to harvest the entire sale area.**

**The overall objective for this forest management unit includes the production of sawlogs and pulp material to provide money for the State of Washington trusts while at the same time managing in such a manner as to protect site productivity, minimize the potential for erosion, provide for current and future wildlife habitat through leaving a prescribed number of residual trees, and to maintain the integrity and water quality of streams both within and adjacent to the proposal.**

c. *Road activity summary. See also forest practice application (FPA) for maps and more details.*

| Type of Activity | How Many | Length (feet) (Estimated) | Acres (Estimated) | Fish Barrier Removals (#) |
|---|---|---|---|---|
| Construction | | 303 | .3 | 0 |
| Reconstruction | | 0 | | 0 |
| Abandonment | | 0 | 0 | 0 |
| Bridge Install/Replace | 0 | | | 0 |
| Culvert Install/Replace (fish) | 0 | | | 0 |
| Culvert Install/Replace (no fish) | 0 | | | |

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. *(See timber sale map. See also color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")*

a. Legal description:

**Sections 4 and 5, Township 17 North, Range 4 West, W.M.**
**Sections 32 and 33, Township 18 North, Range 4 West, W.M.**

*b. Distance and direction from nearest town (include road names):*

**The propoasl is approximately 7 miles northeast of the town of Porter, WA on the B-Line road in the Capitol State Forest.**

*c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under " SEPA Center.")*

| WAU Name | WAU Acres | Proposal Acres |
|---|---|---|
| PORTER CREEK | 32,138 | 121 |

*13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)*

**This proposal is located within the Porter Creek WAU sub-basins #2 & #4. Approximately 95% of the WAU is managed forestland; the other 5% is portions of the town of Porter, rural homes and farms, and bodies of water. Development does not appear to be a current concern in portions of the WAU not managed by the State, as private farms and forestlands dominate.**

**The uplands of the WAU are mainly managed for timber production. Forest stands within the WAU appear to be almost exclusively second and third growth stands. Personal observations indicate that portions of the WAU located on DNR managed land are managed for timber production, including thinnings, partial cuts, and even-aged harvests. Observations of land in the WAU outside of DNR managed lands indicates that forests are managed for timber production by private timberland owners. Observations of farmland adjacent to state land within the WAU suggests that the land was cleared of forests many decades ago to provide for agricultural crops and livestock.**

**DNR manages approximately 27,827 acres of forestland within the Porter Creek WAU (87%) of the WAU. There are 11,395 acres in Porter Creek sub-basins #2 & #4 and are managed by the DNR.**

| WAU Name/Sub-Basin # | Sub-Basin Acres | Acres of DNR-Managed Land with the Sub-basin | Regen. Harvest in last 7 years | Thinning harvest in last 7 years | Expected future Regen. harvest | Expected future thinning harvest |
|---|---|---|---|---|---|---|
| **Porter Creek #2** | **3,524** | **3,524** | **68** | **110** | **180** | **136** |
| **Porter Creek #4** | **7,871** | **7,871** | **114** | **239** | **215** | **321** |

**In the last 5 years, there have been approximately 182 acres of regeneration harvests located to the south .5 miles and to the north .3 miles. There has been 339 acres of partial cuts and thinnings located to the north .3 miles and the northeast .5 miles. Within the next 2 years, there will be approximately 138 acres of regeneration harvests located .1 mile west and .2 miles to the south of the proposal.**

**To assure this proposal will not contribute to an increased chance of environmental impact in the future, several mitigation measures will be included in this proposal. The harvesting prescription will retain 90-100 trees per acre distributed over the sale landscape. Impacts commonly found following a regeneration harvest such as tree canopy loss, reduced canopy interception of precipitation, and the subsequent increased risk of raindrop splash and surface erosion will be minimized by retaining a stocked stand and canopy.**

**To further reduce the potential for ground disturbance, tracked harvesting equipment will be restricted to dry periods of the year and will be suspended during high moisture events. Exposed soil is expected to be present within skid trails following harvesting. Minimal surface erosion can be expected within these trails until tree canopies fill over the skidded areas and/or until herbaceous vegetation reestablishes itself in bare areas. Also skidding may be suspended when soil rutting exceeds 4 inches in depth, until measures can be incorporated to mitigate the impact.**

**New road construction within the sale will be located on stable terrain. Soils exposed during road construction will be grass seeded and straw will be applied. To ensure that sediment delivery is controlled during the hauling of forest products, existing cross drains, sediment ponds, and other structures will be used to disconnect ditchwater from streams. Ditch water will be routed to the forest floor prior to entering streams. Hauling will be restricted during the winter months if it is found that there is a potential for sediment delivery to nearby streams.**

**In addition to the mitigation efforts incorporated into this proposal under the HCP and Forest Practices RMAP process, the DNR will include contract language in this proposal to meet legal requirements of Forest Practices and the Department of Ecology (DOE), regarding sediment delivery to streams. This language addresses the timing of operations, restrictions on impacts to soils (compacting and rutting), and requirements for sediment control devices and techniques.**

## B. ENVIRONMENTAL ELEMENTS

### 1. Earth

a. General description of the site (check one):

☐Flat, ☐Rolling, ☒Hilly, ☐Steep Slopes, ☐Mountainous, ☐Other:

*1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).*

**The Porter Creek WAU ranges in elevation from 80 to 2560 feet. This WAU receives 60 to 80 inches of precipitation a year. The majority of this precipitation is in the form of rain (84%). The remaining 16% is in the true rain-on-snow zone. Approximately 54% of the slopes in the WAU are under 30%, 44% of the slopes are between 31% and 65%, and 2% of the slopes are over 65%. The primary timber type is**

**Douglas-fir in the uplands and red alder in the draws, with secondary species including western redcedar, bigleaf maple, and western hemlock. This WAU is located in the western hemlock forest vegetation zone.**

*2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*

**While the Porter Creek WAU contains Douglas-fir as the primary timber type, the proposal location contains both Douglas-fir and western hemlock. This proposal is located at 1200 feet in elevation.**

b. What is the steepest slope on the site (approximate percent slope)?

**Approximately 40%.**

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

| State Soil Survey # | Soil Texture or Soil Complex Name | % Slope | Acres | Mass Wasting Potential | Erosion Potential |
|---|---|---|---|---|---|
| 0577 | SILT LOAM | 8-30 | 103 | INSIGNIFICANT | MEDIUM |
| 0664 | SILT LOAM | 30-65 | 9 | MEDIUM | MEDIUM |
| 0575 | SILT LOAM | 5-20 | 3 | INSIGNIFICANT | MEDIUM |
| 0657 | GRAVELLY SILT LOAM | 30-65 | 2 | MEDIUM | HIGH |

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

**There are no surface indications or history of unstable soils in the immediate vicinity of the proposal.**

*1) Surface indications:*

**None observed.**

*2) Is there evidence of natural slope failures in the sub-basin(s)?*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*

**Yes, local knowledge indicates there is evidence of ancient deep-seated landslides in the upper headwaters of the WAU. In addition there is a deep seated landslide located due north approximately .3 miles. This landslide is characterize by a hummocky (lumpy) surface with scattered small sag ponds. The head scarp as well as the head, the bench areas and the main body of the landslide have all been identified. The toe of of the deep seated landslide has deposites from the main body which have been identified as well.**

*3) Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?*
☒*No* ☐*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
*Associated management activity:*

*4) Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*
☒*No* ☐*Yes, describe similarities between the conditions and activities on these sites:*

*5) Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*

**There were no visible indicators of potentially unstable slopes in this proposal. Even so, several mitigation measures will be implemented to ensure slope stability. A 30-foot-wide Equipment Limitation Zone will be utilized while harvesting along three type 5 streams. Ground skidding operations will only be allowed during the dry months of the year and will be suspended if soil rutting exceeds 4 inches. Skid trails will be water barred and grass seed will be applied to all exposed soils as needed. Cut tree tops and limbs will be placed back into skid trails to further reduce soil exposure and potential erosion.**

**The spur road may be constructed during dry weather periods from May until October unless authorized by the Contract Administrator. The spur will be crowned and the ditch will be constructed during road construction. Storm water runoff will be collected by existing road ditches and diverted thorough cross drain culverts onto the forest floor when possible on the haul route. Soils exposed during construction will be grass seeded.**

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
*Approx. acreage new roads: 0.*3 *Approx. acreage new landings: 0.*1 *Fill source:* on site

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

**A small amount of surface erosion could occur as a result of harvesting and road construction activities. In addition, localized soil disturbance may occur due to logging operations.**

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

**Approximately 0.025% of the proposal area will be covered with rocked road.**

h. Propose measures to reduce or control erosion, or other impacts to the earth, if any:
*(Include protection measures for minimizing compaction or rutting.)*

**The harvest area has been designed to minimize impacts to soil and water. A 30-foot-wide Equipment Limitation Zone will be required while harvesting along three type 5 streams. Ground skidding operations will only be allowed during**

**the dry months of the year and will be suspended if soil rutting exceeds 4 inches. The Purchaser must have a skid trail plan that describes the location of the skid trails and displays their pattern. Skid trails will be water barred and grass seed will be applied to exposed soils as needed. Cut tree tops and limbs will be placed back into skid trails to further reduce soil exposure and subsequent erosion. For additional mesasures, see B.1.5.d.**

**2. Air**

a. What types of emissions to the air would result from the proposal (i.e., dust *from truck traffic, rock mining, crushing or hauling,* automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

**Minor amounts of engine exhaust from logging equipment and dust from vehicular traffic and logging equipment may be emitted as a result of this proposal. Wood Smoke may be generated if landing debris is burned. Once project is complete, there will be no emissions.**

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

**No.**

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

**If landing debris is burned, it will be in accordance with Washington State's Smoke Management Plan. A burn permit will be obtained before burning occurs.**

**3. Water**

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map and forest practice base maps.)*

**Yes. There are three type 5 streams within the proposal area that flow into the North Fork of Porter Creek.**

*a) Downstream water bodies:*

**All of the water on or in the immediate vicinity of the proposal flows into the North Fork of Porter Creek, which flows into the Chehalis River.**

*b) Complete the following riparian & wetland management zone table:*

| Wetland, Stream, Lake, Pond, or Saltwater Name (if any) | Water Type | Number (how many?) | Avg RMZ/WMZ Width in Feet (per side for streams) |
|---|---|---|---|
| Streams | 5 | 3 | 0 |

*b) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.*

**None.**

2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐*No* ☒*Yes (See RMZ/WMZ table above and timber sale map.)*
*Description (include culverts):*

**Harvesting, ground skidding, and yarding will take place within 200 feet of three type 5 streams.**

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

**None.**

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *(Include diversions for fish-passage culvert installation.)*
☒*No* ☐*Yes, description:*

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒*No* ☐*Yes, describe location:*

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☒*No* ☐*Yes, type and volume:*

*7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?*

**Yes, the Porter Creek WAU has terrain which, according to the soil surveys and the soil stability model, is highly susceptible to erosion. However, these soils generally occur on slopes exceeding 65%. The timber sale area does contain slopes over 40%, so these steeper slopes (over 65%) are not present. Additionally, the terrain in the WAU is heavily vegetated and limits the occurrence of soil erosion. Therefore, it is unlikely a significant amount of eroded material will enter surface water. In addition, it is unlikely any erodible material will enter flowing waters due to the harvest unit layout, the type of silvicultural**

**prescription for the proposal, which is a partial cut, and the use of Equipment Limitation Zones along three type 5 streams.**

8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*
☒*No* ☐*Yes, describe changes and possible causes:*

9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
☐*No* ☒*Yes, explain:*

**Residual trees within the sale area will create large areas of undisturbed ground, which will reduce the potential for erodible material from entering flowing water. Trees retained within the partial cut unit will also provide shade and help maintain stream bank integrity. Incorporating items in B.1.h above and B.3.d will reduce the likelihood that a significant amount of eroded material will enter surface waters within this proposal.**

10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)?*
*Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?*
☐*No* ☒*Yes, describe:*

**The Porter Creek WAU has 4.7 miles of road per square mile. On forested roads on DNR managed lands, only a small portion of the roads intercept sub-surface flow and deliver it to streams; that generally only occurs during periods of extreme precipitation in a short time frame. In recent years, an emphasis has been placed on using more cross-drain culverts both on new road construction and on existing roads. This has resulted in more ditch water being discharged back to the forest floor.**

11) *Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☒*No* ☐*Yes, approximate percent of WAU in significant ROS zone.*
*Approximate percent of sub-basin(s):*

12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*

13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☒*No* ☐*Yes, describe observations:*

14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*

**This proposal may slightly change the timing/duration/amount of peak flow, and flow rates may increase slightly during low and high flow periods due to decreased transpiration and interception. Changes in peak flow should be less significant than a regeneration harvest at the same locality due to retaining a silviculturally prescribed number of residual trees that will be left within the sale area. In addition, the location of the unit and retaining at least 90-100 trees per acre over the sale landscape should limit contributions to peak flow.**

15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☒*No* ☐*Yes, possible impacts:*

16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*

**Several protection measures will directly or indirectly address possible peak flow impacts. Recent increases in the number of culverts to divert water to the forest floor will reduce the amount of direct runoff into streams. Retaining at least 90-100 trees per acre over the sale area should minimize the potential for increased peak flows. Utilizing Equipment Limitation Zones along type 5 streams within or adjacent to the proposal and maintaining 90-100 trees per acre, will maintain bank stability, reduce surface water runoff over the ground, and provide a continual source of large coarse woody debris (CWD) to both stream banks and channels. Skid trails widths within the sale will be kept under 12 feet wide which will reduce the amount of precipitation reaching exposed soil within the sale area.**

b. Ground *Water*:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

**Where cross drain culverts have been installed on existing roads within the proposal area, groundwater recharge may increase directly below the culverts.**

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

**Small amounts of oil and lubricants may be accidentally discharged as a result of heavy equipment use. No oil or lubricants will be disposed of onsite.**

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☒*No* ☐*Yes, describe:*

*a) Note protection measures, if any.*

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

**Storm water runoff will be collected by existing road ditches and discharged either through existing cross drains or ditch outs onto the forest floor where possible. In addition, roads that cross over streams have been sloped to make sure water flows away from streams and into existing culverts, which discharge water away from existing stream channels.**

2) Could waste materials enter ground or surface waters? If so, generally describe.

**Some logging slash may inadvertently enter three type 5 streams within the proposal area. Insignificant amounts of oil and other lubricants could be discharged inadvertently as a result of heavy equipment use.**

*a) Note protection measures, if any.*

**Slash will be removed by hand from flowing streams as directed by the Contract Administrator. Equipment use will be limited along streams in accordance with Forest Practices rules. No lubricants will be disposed of onsite.**

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

**Storm water runoff will be collected by existing road ditches and discharged either through existing cross drains or ditch outs onto the forest floor where possible. In addition, roads that cross over streams have been sloped to make sure water flows away from streams and into existing culverts which discharge water away from existing stream channels.**

**4. Plants**

a. Check or circle types of vegetation found on the site:

☒deciduous tree: ☒alder, ☒maple, ☐aspen, ☒*cottonwood,* ☐*western larch,* ☐*birch,* ☐other:
☒evergreen tree: ☒*Douglas-fir,* ☐*grand fir,* ☐*Pacific silver fir,* ☐*ponderosa pine,* ☐*lodgepole pine,* ☒*western hemlock,* ☐*mountain hemlock,* ☐*Englemann spruce,* ☐*Sitka spruce,* ☒*red cedar,* ☐*yellow cedar,* ☐other:
☒shrubs: ☒*huckleberry,* ☐*salmonberry,* ☒*salal,* ☐*other:*
☐grass
☐pasture
☐crop or grain
☐wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☐skunk cabbage, ☐*devil's club,* ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☐other types of vegetation:
☐*plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*

**Approximately 80-90 trees per acre will be removed in the partial cut harvest, leaving 90-100 trees per acre standing. The trees removed will be the smaller, suppressed or codominant trees, and those with more damage or poor form. Understory shrub species will be disturbed during harvest operations, but will not be removed from the site and should recover quickly.**

*1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: http://www.dnr.wa.gov under "SEPA Center.")*

**To the east of the proposal is a newly planted, 68-acre Douglas-fir plantation; to the north a is a three-year-old, 50-acre, Douglas-fir plantation. South of the proposal are 60-65 year-old stands of Douglas-fir, western hemlock and red alder. To the west is 60-65 year old red alder and Douglas-fir stand and a six-year-old Douglas-fir plantation of 55 acres.**

*2) Retention tree plan:*

**Approximately 90-100 trees per acre will be retained on this sale. The trees will be selected for retention primarily based on crown, size, and form…the best crop trees will be left for future harvest, and the smaller trees will be removed. Leave trees will not be designated until the regeneration harvest is planned.**

c. List threatened or endangered *plant* species known to be on or near the site.

| TSU Number | FMU_ID | Common Name | Federal Listing Status | WA State Listing Status |
|---|---|---|---|---|
| None Found in Database Search | | | | |

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

**The proposed removal will open the forest canopy, allowing more light to reach the forest floor. Understory conifer saplings, shrubs, and herbaceous plants will also respond positively (increased growth) to increased light, 90-100 trees per acre will be retained and scattered throughout the sale area.**

**5. Animal**

a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:

birds: ☐hawk, ☐heron, ☐eagle, ☒songbirds, ☐*pigeon,* ☐other:
mammals: ☒deer, ☒bear, ☐elk, ☐beaver, ☐other:
fish: ☐bass, ☒salmon, ☒trout, ☐herring, ☐shellfish, ☐other:
*unique habitats:* ☐*talus slopes,* ☐*caves,* ☐*cliffs,* ☐*oak woodlands,* ☐*balds,* ☐*mineral springs*

*b.* List any threatened or endangered species known to be on or near the site *(include federal- and state-listed species).*

| TSU Number | FMU_ID | Common Name | Federal Listing Status | WA State Listing Status |
|---|---|---|---|---|
| **1** | **36499** | **BULL TROUT** | **THREATENED** | **CANDIDATE** |
| **2** | **42719** | **BULL TROUT** | **THREATENED** | **CANDIDATE** |
| **3** | **42720** | **BULL TROUT** | **THREATENED** | **CANDIDATE** |
| **4** | **42733** | **BULL TROUT** | **THREATENED** | **CANDIDATE** |

**Bull trout habitat is adjacent to this proposal. However, bull trout habitat is protected under the Department of Natural Resources' Habitat Conservation Plan's Riparian Strategies.**

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:* *Explain if any boxes checked:*

**This proposal is located in the Pacific flyway, which is part of the Pacific Northwest forests. Many neotropical birds are closely associated with riparian areas, cliffs, snags and structurally unique trees in these forests. Riparian areas and special habitats are protected through implementation of DNR's Habitat Conservation Plan. Migratory waterfowl also use the Pacific flyway; the area for this proposal is not generally the type of area used for resting or feeding by migratory waterfowl.**

c. Proposed measures to preserve or enhance wildlife, if any:

**The proposal will open the stand to more sunlight and enhance development of vertical structural diversity in the unit. By designing this sale to comply with the State's HCP, wildlife and wildlife habitat will be preserved and enhanced. Grass seeding exposed soils will help protect water quality and provide forage.**

*1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.*

Species /Habitat: Protection Measures:

**6. Energy and Natural Resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

**Does not apply.**

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

**Does not apply.**

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

**Does not apply.**

**7. Environmental Health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

**There is minimal hazard incidental to heavy machinery operations, such as the risk of fire or accidental discharge of small amounts of oil or other lubricants.**

1) Describe special emergency services that might be required.

**There are not any special emergency services required at this time. Pump trucks and/or pump trailers will be required on site during fire season. In the event of a lubricant spill, DNR and the Department of Ecology will be contacted by the Purchaser.**

2) Proposed measures to reduce or control environmental health hazards, if any:

**No oil or lubricants will be disposed of on site. The cessation of operations may occur during periods of time when the risk of fire may increase. Fire tools and equipment will be kept on site during fire season.**

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

**Does not apply.**

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

**Minimal noise levels associated with logging operations and truck traffic. No long-term impacts.**

3) Proposed measures to reduce or control noise impacts, if any:

**None at this time.**

**8. Land and Shoreline Use**

a. What is the current use of the site and adjacent properties? *(Site includes the complete proposal, e.g. rock pits and access roads.)*

**Forestry.**

b. Has the site been used for agriculture? If so, describe.

**No.**

c. Describe any structures on the site.

**Does not apply.**

d. Will any structures be demolished? If so, what?

**Does not apply.**

e. What is the current zoning classification of the site?

**Forest land.**

f. What is the current comprehensive plan designation of the site?

**Long-term forestry.**

g. If applicable, what is the current shoreline master program designation of the site?

**Does not apply.**

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

**Does not apply.**

i. Approximately how many people would reside or work in the completed project?

**Does not apply.**

j. Approximately how many people would the completed project displace?

**Does not apply.**

k. Proposed measures to avoid or reduce displacement impacts, if any:

**Does not apply.**

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

**This sale was designed in compliance with DNR's Forest Resource Plan (July 1992), the Final Habitat Conservation Plan (September 1997), and current Forest Practices regulations as they apply in conjunction current land use classifications.**

**9. Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

**Does not apply.**

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

**Does not apply.**

c. Proposed measures to reduce or control housing impacts, if any:

**Does not apply.**

**10. Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?

**Does not apply.**

b. What views in the immediate vicinity would be altered or obstructed?

*1) Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*
☒*No* ☐*Yes, viewing location:*

*2) Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*
☒*No* ☐*Yes, scenic corridor name:*

*3) How will this proposal affect any views described in 1) or 2) above?*

**Does not apply.**

c. Proposed measures to reduce or control aesthetic impacts, if any:

**There will be an average of 90-100 trees per acre scattered throughout the sale area.**

**11. Light and Glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

**Does not apply.**

b. Could light or glare from the finished project be a safety hazard or interfere with views?

**Does not apply.**

c. What existing off-site sources of light or glare may affect your proposal?

**Does not apply.**

d. Proposed measures to reduce or control light and glare impacts, if any:

**Does not apply.**

**12. Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity?

**Informal recreational opportunities include hunting, berry picking, sightseeing, hiking and ORV use.**

b. Would the proposed project displace any existing recreational uses? If so, describe:

**Yes. Recreational use of existing roads adjacent to the sale area will be temporarily displaced while the timber harvest occurs.**

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

**Signs will be posted on the road to warn of the harvesting operation when it is active.**

**13. Historic and Cultural Preservation**

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

**No.**

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

**None.**

c. Proposed measures to reduce or control impacts, if any:
*(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)*

**None.**

**14. Transportation**

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

**Forest roads lead to Highway 12.**

*1) Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?*

**No.**

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

**No.**

c. How many parking spaces would the completed project have? How many would the project eliminate?

**Does not apply.**

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

**Yes. See A.11.**

*1) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*

**This proposal does not impact the overall transportation system.**

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

**No.**

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

**Approximately 3 to 7 log truck trips per day and 2 to 4 administrative trips per week will be generated until the completion of timber harvest. After the project is complete, the number of vehicular trips will return to present levels.**

g. Proposed measures to reduce or control transportation impacts, if any:

**None.**

**15. Public Services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

**No.**

b. Proposed measures to reduce or control direct impacts on public services, if any.

**None.**

**16. Utilities**

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

**None.**

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

**None.**

**C. SIGNATURE**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: Kent Stanford Forester 1 Date: 01-09-04
Title

Reviewed by: State Lands Assistant Date: 10-01-04
Title